

AMENDMENTS TO THE SPECIFICATION:

The paragraph beginning on page 1, line 5 has been changed as follows:

The ~~present~~ invention relates to a tape printer. Particularly but not exclusively, the ~~present~~ invention relates to a handheld tape printer for use with a cassette housing a print receiving medium and a separate cassette housing a print forming medium, such as an image transfer tape.

The paragraph beginning on page 1, line 13 has been changed as follows:

Known tape printers may be divided into two types: tape printers for use with a cassette which houses both a print receiving medium (hereinafter referred to as a tape which may be a continuous tape or may comprise a web carrying die cut labels) and a print forming medium (hereinafter referred to as an ink ribbon); and tape printers which are arranged for use with a cassette housing the tape and a separate cassette housing the ink ribbon. The advantage of the latter arrangement is that the ink ribbon cassette may be replaced with another cassette containing ink ribbon of either the same or a different type without replacing the tape cassette. This is advantageous in, for example, ~~multicoloured~~ multicolored printing in which the ink ribbon cassette may be replaced with another cassette containing ink ribbon of a different ~~colour~~ color. Alternatively, the tape cassette may be replaced without replacing the ink ribbon cassette. This feature is advantageous if a different type of tape is required, such as a tape of a different width or a tape comprising a different material. Furthermore, a single ink ribbon cassette may be used for a plurality of tape cassettes with the ink ribbon in the ink ribbon cassette being longer than the tape in the tape cassette.

The paragraph beginning on page 2, line 4 has been changed as follows:

In ~~the present~~ this specification, systems which use a cassette containing both the tape and ink ribbon are referred to as D1-type systems and systems which use separate tape and ink ribbon cassettes are referred to as D2-type systems.

The paragraph beginning on page 3, line 14 has been changed as follows:

A D1-type arrangement which seeks to solve the above identified problem is disclosed in ~~US 5,435,657~~ U.S. 5,435,657. This patent discloses a printer for use with a cartridge housing an ink ribbon and tape. A platen is provided in the cassette which co-operates with the tape and ink ribbon, the tape being disposed on a side closest to the platen relative to the ink ribbon. The printer has an opening on a side thereof for receiving the cassette which may be laterally inserted into the printer. When laterally inserted into the printer, the platen of the cassette operates with a printhead in the printer and a gear on the platen co-operates with a gear in the printer for advancing the tape and ink ribbon.

The paragraphs beginning on page 4, line 15 and continuing onto page 6, have been changed as follows:

According to the ~~present~~ invention there is provided a tape printer for use with a tape cassette and an ink ribbon cassette, said printer comprising a housing and a printhead having a line of printing elements thereon, wherein said printer comprises at least one cassette receiving portion in said housing for receiving the tape cassette and the ink ribbon cassette, such that the cassettes are receivable in a direction which is substantially perpendicular to the line of printing elements on the printhead when the printhead is in a printing position.

According to another aspect of the ~~present~~ invention there is provided a tape printing system comprising a tape printer as defined above in combination with a tape cassette housing a supply of tape and an ink ribbon cassette housing a supply of ink ribbon.

According to another aspect of the ~~present~~ invention there is provided an ink ribbon cassette for a tape printer, said cassette comprising a body having an ink ribbon supply portion housing an ink ribbon supply spool, an ink ribbon take-up portion housing an ink ribbon take up spool, and a member connecting said two portions, wherein an opening is provided in the body between the ink ribbon supply portion and the ink ribbon take up portion which extends over the entire width of the cassette body from a rear side to a front side in a direction perpendicular to axes of rotation of said spools, with ink ribbon passing from said ink ribbon supply portion to said ink ribbon take-up portion across said opening, said ink ribbon cassette further comprising a gear coupled to said ink-ribbon take-up spool at an upper or a lower portion thereof for coupling with a drive gear in a tape printer.

According to another aspect of the ~~present~~ invention there is provided a method of loading a tape cassette and an ink ribbon cassette into a tape printer, said tape printer comprising a printhead having a line of printing elements thereon, said method comprising the step of inserting said tape cassette and said ink ribbon cassette into said tape printer in a direction which is substantially perpendicular to the line of printing elements on the printhead when the printhead is in a printing position.

Embodiments of the ~~present~~ invention solve the above identified problems by providing a tape printer for use with a tape cassette and an ink ribbon cassette, in which the tape cassette and ink ribbon cassette are laterally insertable into the printer in a direction which is perpendicular to an axis of rotation of a platen and a line of print elements on a printhead within the printer. Accordingly, embodiments provide a D2-type system in which the tape cassette and ink ribbon cassette are loadable into the printer without the possibility of

the tape and ink ribbon catching on elements of the printer such as the printhead and/or platen. Embodiments of the ~~present~~ invention are user friendly and allow easy loading and unloading of cassettes into a tape printer. Furthermore, embodiments of the ~~present~~ invention have the advantage over D1-type arrangements in that the tape cassette or the ink ribbon cassette can be replaced individually according to the requirements of a user.

According to another aspect of the ~~present~~ invention there is provided a tape cassette for a tape printer, the tape cassette comprising a body having a base, a top, and sides extending from the base to the top, the body housing a roll of print receiving medium having an axis of rotation extending in a first direction, the body having a guide member on each of two opposing sides extending along said sides in a second direction perpendicular to the first direction for guiding the tape cassette into a tape printer in the second direction.

The paragraphs beginning on page 7, line 18 has been changed as follows:

For a better understanding of the ~~present~~ invention and to show how the same may be carried into effect, reference will now be made by way of example to the accompanying drawings in which:

Figure 1 is a schematic diagram of a D2-type printing system according to a first embodiment of the ~~present~~ invention;

The paragraph beginning on page 8, line 1 has been changed as follows:

Figure 4 shows a schematic diagram of a D2-type printing system according to a second embodiment of the ~~present~~ invention;

The paragraph beginning on page 8, line 20 has been changed as follows:

Figure 9 shows a schematic diagram of a D2-type printing system according to a third embodiment of the ~~present~~ invention;

The paragraph beginning on page 9, line 11 has been changed as follows:

Figure 16 shows a schematic diagram of a D2-type printing system according to a fourth embodiment of the ~~present~~ invention;

Figure 17 shows a different view of the fourth embodiment of the ~~present~~ invention;

The paragraph beginning on page 10, line 16 has been changed as follows:

Figure 28 shows the ink ribbon cassette of Figure 27 with a front side removed to illustrate the interior of the ink ribbon cassette; and

The paragraph beginning on page 10, line 20 has been changed as follows:

In the drawings, like parts are labelled with the same reference numeral. Furthermore, it is to be noted that the drawings are only schematic. In particular, the drawings show the cassette receiving part of printers according to embodiments of the ~~present~~ invention. For clarity, other parts of the printer such as a keyboard and a display have not been illustrated. It is intended that the cassette receiving parts illustrated may be incorporated into a hand held printer or into a PC printer. For example, in one embodiment, the portion of the printer comprising the keyboard and display extends from a side of the cassette receiving part opposite the cutter mechanism in the illustrated embodiments.

The paragraph beginning on page 11, line 1 has been changed as follows:

Figures 1 to 3 show schematic diagrams of a D2-type printing system according to a first embodiment of the ~~present~~ invention. The printing system comprises a printer 2, a tape

cassette 4 (an embodiment of which is illustrated in more detail in Figures 24 to 26 and described later) and an ink ribbon cassette 6 (an embodiment of which is illustrated in more detail in Figures 27 to 29 and described later). The printer 2 has a housing comprising two parts which are rotatable relative to each other. In the illustrated embodiment the housing comprises a cover 10 which is rotatable relative to a body 12 of the printer 2. The cover 10 may be a cover. An opening 8 on a side of the body 12 is provided for laterally inserting the tape cassette 4. The tape cassette 4 further comprises a platen roller 11. The cover 10 comprises a printhead 14 mounted thereon. When in an open position as illustrated in Figure 2a, the cover 10 is arranged to receive the ink ribbon cassette 6. Closing the cover 10 having the ink ribbon cassette 6 mounted thereon brings the printhead 14 into engagement with the platen 11 mounted in the tape cassette 4 with ink ribbon and tape disposed therebetween. The closing operation is illustrated in Figures 3a and 3b. A cutter 16 is provided on a side of the tape printer 2 adjacent to a tape exit 18 for cutting a label.

The paragraph beginning on page 15, line 24 has been changed as follows:

Figures 4 to 7 show schematic diagrams of a D2-type printing system according to a second embodiment of the ~~present~~ invention. The printing system comprises a similar structure to that of the first embodiment. The second embodiment differs from the first embodiment in that the ink ribbon cassette 106 is not mounted directly in the cover 10 carrying the printhead 14, but rather is mounted in an ink ribbon cassette holder 42 which moves together with the cover 10 when opening the cover, but with limited rotation relative to the cover. When closing the cover 10, the ink ribbon cassette holder 42 holding the ink ribbon cassette 106 is engaged by the cover 10 and is pushed into a closed position with the printhead 14 passing through an opening in the holder 42 and ink ribbon cassette 106 to co-operate with the platen roller in the tape cassette 4.

The paragraph beginning on page 18, line 24 has been changed as follows:

Figures 9 to 15 show schematic diagrams of a D2-type printing system according to a third embodiment of the ~~present~~ invention. The printing system comprises a tape cassette 4, a tape printer and an ink ribbon cassette 206. The tape printer has an opening 8 in a side thereof for laterally inserting the tape cassette 4. The tape printer has another opening 58 for lateral insertion of the ink ribbon cassette 206. The tape printer further comprises a printhead 14 mounted on a rotatable mechanism 60 for rotating the printhead into a printing position via a lever 56 mounted for rotation on the printer. The printhead 14 passes through an opening in the ink ribbon cassette 206 to co-operate with the platen mounted in the tape cassette 4 such that the tape and ink ribbon are disposed therebetween.

The paragraph beginning on page 20, line 9 has been changed as follows:

Figures 16 to 23 show schematic diagrams of a D2-type printing system according to a fourth embodiment of the ~~present~~ invention. The fourth embodiment is similar in construction to the third embodiment, the difference being in the structure of the mechanism on which the printhead 14 is mounted. In the third embodiment, the printhead is mounted on a rotatable mechanism 60. In contrast, in the fourth embodiment the printhead is mounted on a mechanism 64 which moves along a straight line in a direction which is perpendicular to a line of printing elements on the printhead and which is perpendicular to the axis of rotation of the platen in the tape cassette when the tape cassette is loaded in the printer. The mechanism comprises a lever 64 which is moveable in and out of an opening in the tape printer body 12. After inserting the ink ribbon cassette 306 and tape cassette 4 into the printer, pushing the lever 64 in an inwards direction causes the printhead 14 to pass through an opening in the ink

ribbon cassette 306 and co-operate with the platen in the tape cassette with the tape and ink ribbon disposed therebetween.